

21908

S/125/60/000/011/003/016
A161/A133

18.8300 1138 1454

AUTHORS: Cheskis, Kh.I., and Vol'fson, S.I.

TITLE: The effect of temperature and heating time on intercrystalline corrosion in 1Kh18N9T (1Kh18N9T) steel

PERIODICAL: Avtomaticheskaya svarka, no. 11, 1960, 13-17

TEXT: The 1Kh18N9T chrome-nickel-titanium austenite steel is used in the oil industry for power and other hot-working equipment in the range of 400-600°C. The Giproneftemash Institute has investigated this steel with a titanium-carbon ratio of $\frac{\%Ti}{\%C - 0.03}$ from 5.1 to 17.5 after hardening at 1,050°C quenching in water and heating from 0.5 to 10,000 hours at temperatures between 500 and 700°C. A standard intercrystalline corrosion test solution was used (110 g/liter $CuSO_4 \cdot 5H_2O$, and 50 cm³/liter H_2SO_4); 4 mm thick specimen plates were boiled for 120 hours. Intercrystalline corrosion was measured by measurements of electric resistance, bend angle, and loss of metallic sound. The results are given in diagrams. The minimum time during which corrosion

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start (t_m) was reduced with an increasing temperature in all tested 1Kh18N9T steel compositions, but from a certain temperature point on steel was not at all prone to intercrystalline corrosion. The higher the $\frac{\%Ti}{\%C - 0.03}$ relation the lower was this point. Addition of titanium considerably raised t_m at a given temperature and lowered the maximum temperature up to which steel developed corrosion. Steel with a Ti/C ratio of 15 had a tendency to corrosion only after 5,000 and 10,000 hours heating at 500°, and 5,000 hours at 550°. The danger zone (tendency to corrosion) is marked by an interrupted line in the diagrams. It is stated that the tendency to corrosion developed in heating to elevated temperatures (675, 650, 600 and 575°C) and disappeared again when the steel was held at same temperature for longer time. The following general conclusions are drawn: 1Kh18N9T steel develops intercrystalline corrosion under prolonged effect of elevated temperature just like the "18-8" steel without titanium; a titanium addition to "18-8" steel or an increase of the titanium content in 1Kh18N9T steel at a titanium - to carbon ratio from 5.1:1 to 15:1 makes the metal develop intercrystalline corrosion at lower temperature and during a more protracted time. There are 7 figures and 4 Soviet references.

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The effect of temperature and heating time...

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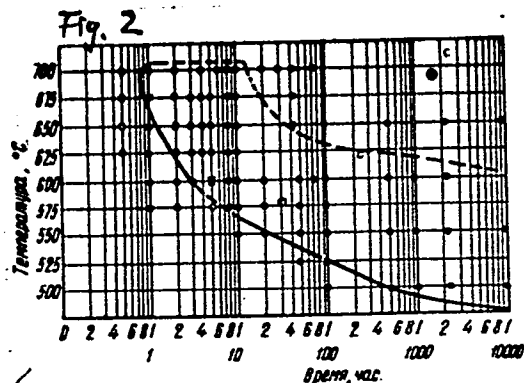
ASSOCIATION: Giproneftemash

SUBMITTED: March 28, 1960

Figure 2:

Dependence of intercrystalline corrosion in steel with $\frac{\%T1}{\%C-0.03} = 5.1$ on the temperature between 500 and 700°C and time from 1 to 10,000 hours

- - no tendency to intercrystalline corrosion
- - tendency to corrosion
- × - weak corrosion tendency



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The effect of temperature and heating time...

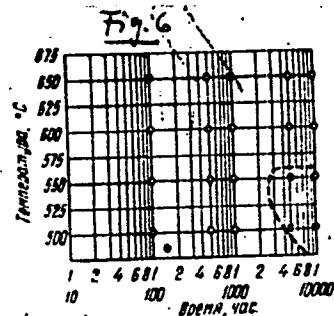


Figure 6
Same dependence in steel
with a Ti/C ratio of 15.0
(specification see fig.2)

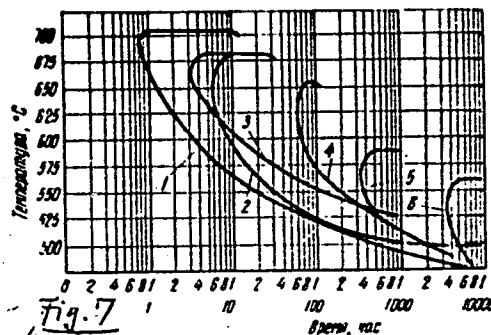


Figure 7
The effect of the titanium-to-car-
bon ratio in 1Kh18N9T steel

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S/137/61/000/002/014/046
A006/A001

Translation from: Referativnyy zhurnal, Metallurgiya, 1961, No. 2, p.. 9, # 2E67

AUTHORS: Cheskis, Kh.I., Vol'fson, S.I., Medvedev, Yu.S.

TITLE: The Effect of Extended Heating on the Proneness to Intercrystalline Corrosion of 1X18H9T (1Kh18N9T) Steel

PERIODICAL: V sb. "Mezhkristallitn. korroziya i korroziya metallov v napryazh. sostoyanii", Moscow, Mashgiz, 1960, pp. 27 - 44

TEXT: It is shown that the A-2 test method is completely unsuitable for evaluating the proneness to intercrystalline corrosion of steels, intended for operations at elevated temperatures (550 - 650°C). Impoverishment in Ti and a rise of the quenching temperature from 1,050 to 1,200°C entails increased proneness of 1Kh18N9T steel to intercrystalline corrosion. The introduction of Ti into 18-8 steel does not protect preliminary quenched steel against intercrystalline corrosion after heating at 550-650°C. This is obtained by stabilizing annealing of preliminary quenched 1Kh18N9T steel with a Ti-C ratio as high as 6.2 and more, for 3 hours at 850-870°C. There are 4 references. Yu.S.
Translator's note: This is the full translation of the original Russian abstract.

Card 1/1

D'YAKOV, V.G.; LEVIN, I.A.; CHESKIS, Kh.I.

Electrically welded pipes used in place of seamless pipes for
petroleum refineries and petrochemical plants. Mash. i neft.
obor. no.4:16-17 '64. (MIRA 17:6)

1. Gosudarstvennyy nauchno-issledovatel'skiy i proyektnyy
institut neftyanogo mashinostroyeniya.

CHESKIS, Kh.I.

Pipes made from Kh22N18 steel in pyrolysis furnaces for hydro-carbon gases. Mash. i nef. obor. no.5:22-26 '64.
(MIRA 17:6)

1. Gosudarstvennyy nauchno-issledovatel'skiy i proyektnyy institut neftyanogo mashinostroyeniya.

L 13604-66 EWT(m)/EWA(d)/T/EWP(t)/EWP(s)/EWP(b) JD

ACC NR: AP6002909 SOURCE CODE: UR/0286/65/000/024/0073/0073

INVENTOR: Cheskis, Kh. I.; Vitman, D. V.; Boyarinova, A. P.

ORG: none

TITLE: Oxidation resistant chromium-nickel steel. Class 40,
No. 177080 [announced by the State Design and Scientific Research
Institute of Petroleum Machinery (Gosudarstvennyy proyektnyy i nauchno-
issledovatel'skiy institut neftyanogo mashinostroyeniya)]

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no: 24, 1965, 73

TOPIC TAGS: steel, oxidation resistant steel, chromium containing
steel, nickel containing steel, manganese containing steel, silicon
containing steel

ABSTRACT: This Author Certificate introduces an oxidation-resistant
chromium-nickel steel with increased resistance to carburizing. The
steel contains 18—25% chromium, 8—18% nickel, 6—8% manganese,
1.3—3% silicon, 0.3% max carbon, 0.2% max nitrogen, 0.025% max
sulfur, and 0.035% max phosphorus. [AZ]

SUB CODE: 11/ SUBM DATE: 17Sep63/ ATD PRESS: 4187

stainless steel

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UDC: 629.15—194.3.24.26

L 15703-66 EWT(m)/EWA(d)/ENP(j)/T/ENP(t)/EVP(z)/ENP(b) MJW/JD/VW/RM

ACC NR: AP6003308

SOURCE CODE: UR/0129/66/000/001/0042/0046

AUTHOR: Cheskis, Kh. I.

ORG: Giproneftemash

TITLE: Steels for the tubes of furnaces for the pyrolysis of hydrocarbon gases

SOURCE: Metallovedeniye i termicheskaya obrabotka metallov, no. 1, 1966, 42-46

TOPIC TAGS: steel, carburization, pyrolysis, metal scaling, metal oxidation /
Kh20N14S2 Cr-Ni steel

ABSTRACT: Since tubes of Kh23N18 steel undergo marked carburization when used in pyrolysis furnaces, which probably is the chief cause of the rupture of these tubes, the authors investigated the suitability of standard and experimental ferritic and austenitic Ni-Cr steels for this purpose: one melt of Kh23N18 steel (0.09% C, 0.6% Si, 1.3% Mn, 23.4% Cr, 18.4% Ni, 0.011% S, 0.023% P) and 6 melts of Kh20N14S2 steel (0.05-0.11% C, 2.2-2.8% Si, 0.9-1.3% Mn, 20.2-21.8% Cr, 13.8-14.9% Ni, 0.009-0.015% S, 0.006-0.018% P) were tested for plasticity, tensile strength, impact strength at temperatures of 20-950°C over periods of up to 3000 hr. Findings: the impact strength of the investigated steels at first decreases with increasing temperature (nadir at 800°C), owing to the formation of σ -phase at 700-950°C but eventually again increases as the aging is extended for) 1000 and 3000 hr. A similar pattern is observed for

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UDC: 669.14.018.15

L 15703-66

ACC NR: AP6003308

3

tensile strength and plasticity. The melts of Kh20N14S2 steel which have a lower C content and higher Si content display some decrease in ultimate strength. The steels were subsequently tested for proneness to carburization by exposing them to a city-gas atmosphere at 950°C in gas-carburizing furnace with a carburizing cycle of 90-150 hr. Following 2000 hr of carburizing (15 cycles) the specimens were analyzed for carbon content. Findings: Kh20N14S2 steel is much more resistant to carburizing than Kh23N18 steel. The greater the Si content of a melt of Kh20N14S2 steel, the greater its resistance to carburizing is. Thus the melts with the highest Si content (2.56 and 2.8% Si) are the least susceptible to carburizing: the depth of the carburized layer for the melt with 2.8% Si is only 1.3 mm against 2.9 mm for the melt with 2.16% Si and for Kh23N8 steel. This was confirmed by placing melt specimens for 1000 hr in the exit tube of a pyrolysis furnace. In addition, measurements of the scaling resistance of the steels, as determined according to the weight gain of specimens after 100, 200, 300, 400, 500, 700 and 1000 hr of heating in air at 900°C showed that likewise Kh20N14S2 is markedly superior in this respect to Kh23N18 steel. Thus, Kh20N14S2 steel containing up to 0.12% C and 2.2-3% Si may be used in lieu of Kh23N18 steel as the material for the tubes of pyrolysis furnaces. Orig. art. has: 3 tables, 3 figures.

SUB CODE: 07, 11, 13, 20/ SUBM DATE: none/ ORIG REF: 000/ OTH REF: 000

Card 2/2 SYW

ASTROVA, Nina Vladimirovna; BELYAYEVA, Galina Fedorovna, kand. tekhn. nauk; DLUGACH, Lev Samoylovich, prof.; KRUTIKOVA, Mariya Sergeyevna; OSHANINA, Aleksandra Ivanovna; TIMOSHENKO, N.N., kand. tekhn. nauk, red., CHEKIS, Z.B., red.; PLAKSHE, L.Yu., tekhn. red.

[French-Russian metallurgical dictionary]Frantsuzsko-russkii metallurgicheskii slovar'. [By] N.V.Astrova i dr. Pod red. G.F.Beliaevoi i N.N.Timoshenko. Moskva, Glav. red. inostr. nauchno-tekhn. slovarei Fizmatgiza, 1962. 433 p. (MIRA 15:10)
(French language--Dictionaries--Russian)
(Metallurgy--Dictionaries)

GOROKHOV, P.K., kand. tekhn. nauk; GOR'KOVA, V.I., kand. tekhn. nauk;
PAVLOV, L.I., kand. tekhn. nauk; SERGEYEV, N.P.; TAREYEV,
B.M., doktor tekhn. nauk, prof.; SIMONEN, I.S.; KURBATOVA, N.S.
kand. tekhn. nauk, prof.; red. CHESKIS, Z.B., red.

[French-Russian electrical engineering dictionary] Frantsuzsko-
russkii elektrotekhnicheskii slovar'. Pod red. N.S. Kurbatovoi
i B.M. Tareeva. Moskva: Sovetskaya entsiklopediya, 1965. 720 p.
(MIRA 18:12)

8(6)

SOV/112-59-2-2495

Translation from: Referativnyy zhurnal. Elektrotehnika, 1959, Nr 2, p 32 (USSR)

AUTHOR: Cheslavskaya, L. I.

TITLE: Use of Salt Concentrates for Checking Steam and Feed-Water Quality in High-Pressure Once-Through Boilers (Primeneniye solekontsentratsion dlya kontrolya kachestva para i pitatel'noy vody pryamotoknykh kotlov vysokogo davleniya)

PERIODICAL: Sb. inform. materialov Mosenergo, 1957, Nr 14, pp 107-115

ABSTRACT: Superheated-steam and feed-water salt meters with salt concentrates, developed by MOTsKTI, are described, as well as their tentative operation at the Shchekino electric generating station. Salt enrichment of a sample in both types of salt meters is attained by converting the sample into a steam-water mixture of a specified humidity and by subsequently segregating the moisture in a separator. All solids contained in the sample are retained with the moisture. Enrichment is inversely proportional to the sample humidity.

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SOV/112-59-2-2495

Use of Salt Concentrates for Checking Steam and Feed-Water Quality in High-

Sample humidification in the superheated-steam salt meter is attained by cooling and subsequent throttling. The steam-water mixture in the feed-water salt meter is obtained by partial evaporation of the feed-water sample. After some adjustments had been made, the superheated-steam meter ensured a constant enrichment which, in the case of the feed-water meter, depended on the water sample consumption and pressure variation (0.1-0.2 atm).

Yu. V. Z.

Card 2/2

PANCHENKO, Dmitriy Ivanovich, zasl. deyatel' nauki prof.;
PERFILOV, Petr Afanas'yevich, doktor med. nauk;
PRONIV, Daniil Ivanovich, doktor med. nauk;
CHESLOVSKIY, K.S., red.

[General and local phenomena in the process of the restoration of nerve trunks; studies in the biotron] Obshchie i mestnye yavleniya v protsesse vosstanovleniya nervnykh stvolov; issledovaniya v biotrone. Kiev, Zdorov'ia, 1964. 123 p. (MIRA 18:1)

TSELINSKAYA, N.I.; ZAYTSEVA, N.I.; CHESNAKOVA, Ye.V.—

Gas-liquid chromatography of the liquid products obtained by
carbonylation of propylene. Trudy VNIINeftekhim no.2:188-207
'60. (MIRA 14:2)

(Propene) (Carbonyl compounds)
(Chromatographic analysis)

L 40860-66 EWT(d)/EWT(1)/EEC(k)-2/T IJP(c) AT

ACC NR: AT6023227

SOURCE CODE: UR/2910/65/005/003/0417/0424

AUTHOR: Chesnavichyus, A. A. — Cesnavicius, A.; Alekseyunas, A. A. — Aleksiejonas, A.; Tolutis, V. B. — Tolutis, V.

ORG: Institute of Physics and Mathematics, Academy of Sciences Lithuanian SSR
(Institut fiziki i matematiki Akademii nauk Litovskoy SSR)

54
B+1

TITLE: Impulse-sinusoidal method of measuring the volt-capacitance and volt-ampere characteristics of relaxing p-n-junctions *q M*

SOURCE: AN LitSSR. Litovskiy fizicheskii sbornik. v. 5, no. 3. 1965, 417-424

TOPIC TAGS: volt ampere characteristic, electric capacitance, capacitance bridge, pn junction

ABSTRACT: A bridge method operating under impulse-sinusoidal conditions is proposed for the simultaneous measurement of the barrier capacitance and static and base resistances of relaxing p-n-junctions, i.e., junctions with time-dependent parameters. Calculations of the errors and the results of an experimental check of the correctness of the method are given. A special feature of the proposed method is that a square pulse with a peak modulated by a variable voltage is sent to the input of the bridge used for the measurements. This bridge is balanced both with respect to the variable and constant components of the supply voltage. This method of measurement has the advantage that the three electrical parameters of the p-n-junction can be measured simultaneously. To check the proper operation of the bridge, the volt-capacitance and volt-ampere characteristics of selenium rectifiers were measured under pulsed and

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L 40860-66

ACC NR: AT6023227

0
direct current conditions. The discrepancy of the results obtained under these conditions is attributed to the specimens being heated by the current, which is confirmed by the shape of the volt-ampere characteristic recorded under these conditions. It is concluded that this method permits studying the volt-capacitance and volt-ampere characteristics of relaxing p-n-junctions with relatively large base resistances with a measurement error not exceeding 1%. Orig. art. has: 8 figures and 8 formulas.

SUB CODE: 09/ SUBM DATE: 12Jan65/ ORIG REF: 006/ OTH REF: 003

Card

2/2

IC

ACCESSION NR: AP3001575

8/0191/63/000/006/0015/0018

AUTHOR: Dobrokhotova, M. I.; Chasnenkov, G. M.; Ermolina, A. B.

TITLE: The polyamide film PK-4 in the longitudinal-latitudinal stretch

SOURCE: Plasticheskiye massy, no. 6, 1963, 15-18

TOPIC TAGS: physico-mechanical properties of polyamide film; PK-4 polyamide film, Eta-caprolactamide, structural evaluation

ABSTRACT: PK-4 film is prepared by polymerization of Eta-caprolactamide with a consequent stretching (4 times its size) after its molding. It has a very low thermal conductivity and a capability of being stretched 9 times its original size. It is very rigid and is capable of transmitting ultraviolet light. The investigation was made on the possibility of improving the quality of polyamide film PK-4 by means of surface orientation. The technology of preparation of film samples on the basis of PK-4 film with stretching coefficients of $2.5-2.75 \times 2.5-2.7$ has been worked out. The properties of these samples were determined and it was shown that a film with good physico-chemical properties can be obtained in both directions. It was also established that the prepared material possesses an increased low temperature resistivity which increases in proportion with the increase of degree of stretching up to -50°C . The structural particularities of the prepared samples

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ACCESSION NR: AP3001575

are also explained. Orig. art. has: 2 tables and 5 figures.

ASSOCIATION: none

SUBMITTED: 00

DATE ACQ: 01Jul63

ENCL: 00

SUB CODE: 00

NO REF SOV: 003

OTHER: 002

Card 2/2

Preparation of diacetoneborane from an acetone solution
of mono- and diacetoneborate. In: Synthesis
Communications, 1984, No. 10, p. 1001, 1002.
English. USSR 104,878, Mar. 25, 1984.
The invention relates to the preparation of diacetoneborane
from an acetone solution of mono- and diacetoneborate.
The invention is based on the fact that diacetoneborane
is formed from mono- and diacetoneborate in the presence
of an acid catalyst.

CHESNOKOV, A. (g. Mikhaylov, Ryazanskaya oblast')

Information about the unit assured successful fire extinction.
Pozh.delo 3 no.4:23-24 Ap '57. (MIRA 10:7)
(Fire extinction)

CHESNOKOV, Aleksandr Aleksandrovich; SHILEYKO, T.I., red.;
LARIONOV, G.Ye., tekhn. red.

[Operational amplifiers] Reshaiushchie usiliteli. Moskva,
Gosenergoizdat, 1963. 62 p. (Biblioteka po avtomatike,
no.78) (MIRA 16:12)

(Amplifiers (Electronics))
(Electronic computers--Circuits)

BADYSHTOVA, Knara Mambreyevna; ~~CHESTNOKOV, Anatoliy Aleksnadrovich;~~
BURMISTROV, Gennadiy Georgiyevich; LEVINA, Ye.S., ved. red.;
BASHMAKOV, G.V., tekhn. red.

[Dewaxing of oils]Deparafinizatsiia masel. Moskva, Gos-
toptekhnizdat, 1962. 151 p. (MIRA 15:10)
(Lubrication and lubricants) (Paraffin wax) (Ceresin)

CHESNOKOV, A.A.

38255

S/065/62/000/006/001/007
E075/E136

5.3300

AUTHORS: Denisenko, K.K., Badyshtova, K.M., Mikhaylov, I.A.,
Chesnokov, A.A., Burmistrov, G.G., and Kosova, V.A.

TITLE: Ways of increasing the yield of high quality
residual oils from Eastern sulphurous crudes

PERIODICAL: Khimiya i tekhnologiya topliv i masel, no.6, 1962,
11-15

TEXT: High quality brightstocks were obtained by adsorptional
refining of vacuum residues from high-sulphur Eastern crudes.
The adsorbent was a granulated catalyst and benzine was used as a
solvent. The moving bed process was described previously
(Trudy VNII NP, v.7, Gostoptekhizdat, 1958, 93-103). The
extraction, even for phenol to oil ratio of 4.7 to 1, gave
raffinates with 0.81% coke values instead of the specified
0.45-0.65%. One promising refining treatment was the adsorptional
refining after phenol extraction. For phenol to oil ratio of 3:1
and adsorbent to oil ratio of 1.5:1, light raffinates were
obtained having the viscosity of 17.80-17.51 cs at 100 °C and
coke values 0.36-0.21%. Even better results were obtained using
Card 1/2

Ways of increasing the yield of ... S/065/62/000/006/001/007
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only the adsorptional refining, with the adsorbent to oil ratio 3:1 and 3.5:1, which gave very light raffinates having the viscosity at 100 °C of 16.62-15.99 cs and 0.26-0.19% coke values. The latter method had an additional advantage in that it gave raffinates from which wax could be filtered 30-50% more rapidly than from the solvent raffinates of a less viscous deasphalted residue. Application of the adsorptional method to a deasphalted residue having a coke value of 1.15% gave brightstocks with coke values of 0.2-0.13%, colour 1.5 points, viscosity at 100 °C 20.13 to 18.38 cs, viscosity index of 85-95 and pour point of -20 °C. The yield of the oils was 15.6-13.6% of the vacuum residue compared with 12.5-11.2% obtained when the solvent extraction was used. The use of the adsorptional refining together with or without the solvent extraction obviates the use of clay treatment.
There are 1 figure and 2 tables.

Card 2/2

CHESNOKOV, A.

Advantages of double-bottomed tank vessels. Rech. transp. 21
no.9:50 S '62. (MIRA 15:9)

1. Kapitan tankera "Senezh". (Tank vessels)

CHESNOKOV, A. A.

14

RYSAKOV, M.Y., GOLDSHTEIN, D.L., GUSENKOVA, YE.A., ALFINOVA, E.A.,
BOROVAYA, M.S., PUCHKOV, N.G., KAZANSKIY, V.L., RADYSHTOVA, K.M.,
ROGACHEVA, I.M., CHESNOKOV, A.A., DENISENKO, E.K., ALTSHULER, A.G.,
GERASIMENKO, N.M., YASTREBOVA, O.I., ZHADANOVSKIY, N.B.

Production of High-grade petroleum oils and waxes by hydrogenation.

Report to be submitted for the Sixth World Petroleum Congress,
Frankfurt, 16-26 June 63

CHESNOKOV, A.A.; KROSHCHENKO, V.D.; GORBENKO, L.A.

Studying the impulse loads in shooting a perforator or core lifter.
Razved. i prom. geofiz. no.46:118-125 '62. (MIRA 16:3)
(Boring machinery—Testing)

BALYSHTOVA, K.M.; DENISINKO, K.K.; CHESNOKOV, A.A.

Obtaining KhF-12 oil from eastern sour oils. Neftepr. i ne-
khim. no.7:5-7 '63 (MIRA 17:7)

1. Kuybyshevskiy nauchno-issledovatel'skiy institut neftyanoy
promyshlennosti.

CHESNOKOV, A.A.; ZHERDEVA, L.G.; Primali uchastiye: KOZHEVNIKOV, S.A.;
PYATILETOVA, N.I.; POPOVA, L.D.; LEVINA, L.P.

Effect of resins on the process of dewaxing of residual
raffinates. Khim. i tekhn. topl. i masel 8 no. 7:23-30 JI '63.
(MIRA 16:7)

1. KNII NP i Vsesoyuznyy nauchno-issledovatel'skiy institut
po pererabotke nefi i gazov i polucheniyu iskusstvennogo
zhidkogo topliva.

(Petroleum—Refining) (Paraffin wax)

CHESNOKOV, A.A.

Hydropurification of the residual raffinate of phenol purification.
Nefteper. i neftekhim. no.12:14-16 '63. (MIRA 17:4)

1. Kuybyshevskiy nauchno-issledovatel'skiy institut po pererabotke
nefti.

CHESNOKOV, A.A.; SHEVTSOV, A.M.

Significance of intensifying mixing during final washing of fairly oil-free paraffin in the dewaxing of transformer oils. Nefteper. i neftekhim. no.1:15-16 '64. (MIRA 17:6)

1. Kuybyshevskiy nauchno-issledovatel'skiy institut po pererabotke nefti i Novo-Kuybyshevskiy neftepererabatyvayushchiy zavod.

CHESNOROV, A.A.

Effect of aromatization on the dewaxing process of residual
raffinates. Nefteper. i neftekhim. no.10:18-20 '67.

(MIRA 17:12)

1. Kuybyshevskiy nauchno-issledovatel'skiy institut neftepere-
rabatyvayushchey promyshlennosti.

L 23442-65 ENT(m)/EPF(c)/T Pr-4 DJ

ACCESSION NR: AP4049830

S/0318/64/000/011/0015/0017

AUTHOR: Bady*shtova, K.M.; Chesnokov, A.A.; Ivankina, E.B.; Zhadanovskiy, N.B.;
Konyukhova, M.V.

TITLE: Stability of transformer oil in relation to the nature of the crude

SOURCE: Neftepererabotka i neftekhimiya, no. 11, 1964, 15-17

TOPIC TAGS: transformer oil, Tuymazy* petroleum, hydrogenated petroleum, Mukhanov petroleum, Anastas'yevo petroleum, Zhirnov petroleum, transformer oil acidity

ABSTRACT: Research by VNIINP has established the technology of transformer oil production from distillates of a mixture of Tuymazy*, Bavlin and Mukhanov crudes processed at the Novokuyby*shev refinery by hydrogenation over a alumino-cobalt-molybdenum catalyst. However, under the prescribed hydrogenation conditions (420C, 50 atm, feed 0.5/hr.) the product has a high sedimentation rate and acidity. An investigation showed that the results depend on the crude: Tuymazy* crude showed the optimum results with 0.022% sediment, acid number = 0.18 mg KOH/g oil (yet the distillate showed the highest S content, 1.56%). Therefore, other oils require modified procedures to achieve a sedimentation rate of below 1% after oxidation. "Engineers B.S. Kononov, A.P. Naumova, N.I. Pyatiletova, and

Cord 1/2

L 23442-65

ACCESSION NR: AP4049830

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S.M. Smirnova, and technicians L.I. Chibrikova and M.S. Bugrovskaya took part in the experimental work." Orig. art. has: 1 table.

ASSOCIATION: KNINP; Novokuyby*shevskiy zavod (Novokuyby*shev Plant)

SUBMITTED: 00

ENCL: 00

SUB CODE: FP

NO REF SOV: 006

OTHER: 000

Card 2/2

L 22483-66 EWT(m)/T DJ

ACC NR: AP6007929

SOURCE CODE: UR/0065/66/000/003/0030/0032

AUTHOR: Chesnokov, A. A.; Badyshtova, K. M.; Konyukhova, M. V.; Ivankina, E. B.; Zhadanovskiy, N. B.

ORG: KNIINP; Novokuybyshev Petrochemical Works (Novokuybyshevskiy neftekhimicheskiy kombinat)

TITLE: Antioxidative stability¹¹ of hydrofined transformer oil¹¹

SOURCE: Khimiya i tekhnologiya topliv i masel, no. 3, 1966, 30-32

TOPIC TAGS: transformer oil, petroleum product, petroleum refining, oxidative degradation, oxidation

ABSTRACT: The oxidative stability of hydrofined paraffin-free transformer oil was investigated using a sample with the following characteristics: kinematic viscosity (in cSt) at 20°C--24.45, at 50°C--8.01; 0.14 percent precipitate after oxidation treatment; acid number after oxidation (in mg KOH/g)--0.81; flash point in a closed crucible--150°C; pour point-- -43°C; transparent at +5°C; density at 20°C--0.8840; refractive index n_D^{20} --1.4980; sulfur content--0.18%. The oil was chromatographically separated into 6 narrow cuts. Several blends were prepared and their characteristic indices were compared with those of the starting transformer oil. It was found that reduction in the content of the high molecular weight aromatics results in lower antioxidative

Cord 1/2

UDC: 665.521.54

L 22483-66

ACC NR: AP6007929

stability of the transformer oil. Antioxidative stability increased with reduction in gum content in the transformer oil. Orig. art. has: 3 tables. 0

SUB CODE: 21, 11 SUBM DATE: 00/ ORIG REF: 006/ OTH REF: 001

Cord 2/2 BK

ACC NR: AR6033759 SOURCE CODE: UR/0081/66/000/018/P014/P014

AUTHOR: Chesnokov, A. A.; Ivankina, E. B.; Brendes, V. P.

TITLE: Influence of naphthenes on the deparaffination process of residual raffinates

SOURCE: Ref. zh. Khimiya, Part II, Abs. 18P97

REF SOURCE: Tr. Kuybyshevsk. n.-i. in-t nef. prom-sti, vyp. 32, 1965, 86-96

TOPIC TAGS: hydrocarbon, mineral oil, deparaffination, petroleum product

ABSTRACT: The influence of naphthene hydrocarbons on the deparaffination process was studied. Residual raffinate (RA) of industrial manufacture (RA density, 0.883; viscosity, 18.69 centistoke at 100C) was used as raw material. Naphthene hydrocarbons (density, 0.8678—0.8775; viscosity, 15, 18, 17.38 centistoke at 100C; viscosity index 110—100) were separated from the RA by adsorption and then added to the initial RA in the amount of 1 to 20%. The mixtures then deparaffinized. It is shown that even an insignificant increase in the naphthene content in RA, increases filtration rate 1.5 times, while an increase to 10—20% raises the filtra-

Cord 1/2

CHESNOKOV, A. D.

PA 196T51

USSR/Electricity - Transients

sep 51

"Concerning Some Transient Processes in Circuits
With Capacitance and Resistance," A. D. Ches-
nokov, Yu. D. Ragozin, Engineers, Moscow Power
Eng Inst Imeni Molotov

"Elektrichestvo" No 9, pp 62-67

With the development of low-frequency pu se tech-
niques, it is often necessary to calc transient
and steady-state processes in an RC circuit which
has a square-wave voltage applied to the input.
Cites calcn for the case when the amplitude of the

196T51

USSR/Electricity - Transients (Contd) sep 51

square-wave voltage pulses varies sinusoidally
with a frequency much less than that of the
square-wave pulses. Submitted 23 Jun 50.

196T51

CHESNOKOV, A. D., Cand Tech Sci -- (diss) "Logarithmic
intensiometer." Mos, 1957. 11 pp (Min of Higher Education
USSR, Mos Engineering-Phys Inst), 100 copies (KL, 1-58, 119)

- 70 -

CHESNOKOV, A.D.

AUTHOR: Chesnokov, A.D.

120-5-17/35

TITLE: Electronic Arrangement for Obtaining a Voltage Proportional to the Logarithm of Frequency (Elektronnoye ustroystvo dlya polucheniya napryazheniya, proporsional'nogo logarifmu chastoty)

PERIODICAL: Priory i Tekhnika Eksperimenta, 1957, No.5,
pp. 69 - 73 (USSR).

ABSTRACT: Similar to an arrangement described by Cooke-Yarborough and Pulsford (Ref.2), in 1951. The input is converted into a train of rectangular pulses of constant height. This train is applied to a number of diode-pumps connected in parallel. The leak resistances connected across the averaging capacitors are taken to the common input point of a d.c. amplifier and their currents summed. The time-constants formed by the proportioning capacitors and the respective leak resistances are graded in geometric progression. It is shown that by using only 8 pumps, frequencies in the range 10^2 to 10^7 c.p.s. can be counted with an error of less than 0.5%. Table 2 shows the values of the critical components for the 8-pump case. Appendix 1 sums the important series used; Appendix 2 calculates the error incurred by having no time-constants greater than 10 sec. or less than 10^{-6} sec. Appendix 3 calculates the effective build-up time

Electronic Arrangement for Obtaining a Voltage Proportional to the
Logarithm of Frequency. 120-5-17/35

. to within 1% of the steady-state value. There are 2 figures,
2 tables, 3 appendices and 3 references, 2 of which are Slavic.

ASSOCIATION: Moscow Engineering-Physics Institute
(Moskovskiy inzhenerno-fizicheskiy institut)

SUBMITTED: February 15, 1957.

AVAILABLE: Library of Congress
Card 2/2

L 3161-66 EWT(d)/TSS-2/EWT(1)/EWA(h)

GS/GW

UR/0000/65/000/000/0117/0121

ACCESSION NR: AT5014718

AUTHOR: ⁵⁵Demin, E.A.; ⁵⁵Chinenkov, L.A.; ⁵⁵Mikhaylovskiy, I.P.; ⁵⁵Chesnokov, A.F.

20
B+1

TITLE: Memory devices for systems of meteoric radiotelegraph communications

SOURCE: Operativnyye i postoyannyye zapominyushchiye ustroystva (Rapid and non-volatile storage); sbornik statey. Leningrad, Izd-vo Energiya, 1965, 117-121

TOPIC TAGS: meteoric communication memory, fast reading memory, slow recording memory, standby memory, radiotelegraphy

ABSTRACT: Proposed meteoric radiotelegraph communication links require buffer memories which make possible a continuous transfer of information over a discontinuous communication channel. The memory on the transmitter side should have a high reading rate and slow recording speed while the memory on the receiver side should operate in the reverse manner. The memory described in this article can carry out simultaneous recording and reading of information and can be started and stopped almost instantaneously. With a capacity of 900 code combinations it is relatively simple while, nevertheless, it causes only insignificant reductions in the communication channel transfer rate. It utilizes direct sampling and has five operating digits plus one control digit. Orig. art. has: 3 figures.

Card 1/2

L 3161-66

ACCESSION NR: AT5014718

ASSOCIATION: none

SUBMITTED: 20Jan65

ENCL: 00

SUB CODE: DP, EC

NO REF SOV: 001

OTHER: 001

Cord 2/2 *md*

SOV/110-58-12-4/22

AUTHORS: Palastin, L.M., Candidate of technical sciences and
Chesnokov, A.I., Engineer

TITLE: A Regulated Permanent-Magnet Synchronous Generator
(Reguliruyemyy sinkhronnyy generator s postoyannym
magnitom)

PERIODICAL: Vestnik Elektromyashlennosti, 1958, Nr 12, pp 15-18 (USSR)

ABSTRACT: It is very useful to be able to control the output
voltage of industrial high-frequency generators.
Synchronous alternators with permanent-magnet field
systems are convenient h f generators in other respects
but up till now methods of controlling their output
voltage have not been very satisfactory. A possible
solution to this problem is offered by the generator
illustrated in Fig 1, in which the field system includes
both permanent magnets and electro-magnetic coils. Under
normal operating conditions the two field systems are
additive and the field winding which is supplied with
direct current through sliprings compensates for the
influence of the load current on the generator voltage.
Design features of the magnetic system are discussed.

Card 1/3

SOV/110-58-12-4/22

A Regulated Permanent-Magnet Synchronous Generator

Such a generator, correctly designed, has a number of advantages over both normal permanent-magnet and wound-field alternators. The advantages are confirmed by test data of a number of different high-frequency generators of different constructions but the same ratings. It was found best to connect the field winding to reinforce the field of the permanent magnets. Experimental characteristics of generators are then given and briefly discussed. Thus, regulation characteristics are plotted in Fig 2, the relationship between generator efficiency and excitation power in Fig 3 and the relationship between useful output of the generator and excitation power in Fig 4. The influence of short-circuit current surges on the output voltage is briefly discussed. The design characteristics of the generators that were compared are tabulated. It is concluded that the generator with both permanent magnet and field winding is the best. It never fails to excite and it permits of accurate and economic control over the output voltage over any required range. The machine is smaller and lighter than the other types of

Card 2/3

SOV/110-58-12-4/22

A Regulated Permanent-Magnet Synchronous Generator

generator and its field winding uses relatively little copper. There are 4 figures, 1 table and 3 references of which 2 are English and 1 Italian.

SUBMITTED: 10th July 1958

Card 3/3

88173

16:9500 (1024, 1131, 1132)

S/110/60/000/012/002/004
E194/E455

AUTHORS: Palastin, L.M., Candidate of Technical Sciences,
Putsykin, G.G., Candidate of Technical Sciences,
Chesnokov, A.I., Engineer and Panferov, Yu.B., Engineer

TITLE: Controlled-Output D.C. Machines With Permanent-Magnet
Field Systems

PERIODICAL: Vestnik elektromyshlennosti, 1960, No. 12, pp. 42-48

TEXT: Ordinary d.c. machines with permanent-magnet fields do not permit of direct control of field flux in the air gap. It is accordingly of practical importance to develop a simple and economic design of d.c. machine with permanent-magnet field in which the voltage can be controlled. A way of doing this which has been proposed by the present authors combines two methods of excitation: electromagnetic and permanent magnet. The armature, commutator and brush gear are just the same as in an ordinary d.c. machine. Each field pole has two permanent magnet parts and between them is a magnetic shunt of magnetically soft steel. Under normal operating conditions, the machine is excited jointly by the permanent magnet and the compensation winding which surrounds

Card 1/5

88173

S/110/60/000/012/002/004
E194/E455

Controlled-Output D.C. Machines With Permanent-Magnet Field Systems

the pole as a whole. The permanent-magnet flux passes through the air gap into the armature and is partially shunted, increasing the permanent-magnet leakage flux. Current is passed through the compensating winding in such a direction that its magnetic flux in the air gap coincides in direction with that due to the permanent magnets. Then the flux set up in the shunt by the compensation winding opposes the leakage flux of the permanent magnet which closes through the shunt. Any necessary increase in the working flux is developed by the compensating winding by displacing the leakage flux of the permanent magnet from the shunt into the air gap. In a conventionally excited machine the field winding should be capable of setting up an mmf that will cause all the magnetic flux to pass round the magnetic circuit and will also compensate armature reaction and voltage drop in the armature circuit. By comparison the machines with permanent magnets that are under consideration require much less mmf from the compensation winding. Most of the flux in the air gap is provided by the permanent magnets. If suitably designed, the machine with permanent magnet can have appreciable advantages over an ordinary machine. A number of

Card 2/5

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E194/E455

Controlled-Output D.C. Machines With Permanent-Magnet Field Systems

machines are compared in the article, all fulfilling the same requirements and having the same rated data. Results are given for the case of including a compensating winding (the magnetic fluxes of the permanent magnet and the compensating winding coincide in direction in the air gap). The following machines are compared: with conventional excitation; with permanent magnets with orientated crystallization; with magnico permanent magnets; and with permanent magnets of high coercive force. Two frame sizes of d.c. motor are compared, firstly in respect of no-load characteristics. Very similar no-load characteristics can be obtained with and without permanent magnets, but with permanent magnets the field winding power is much reduced. Moreover, in motors with permanent magnets, the rated voltage may be exceeded by 25 to 30%, which cannot be allowed with normal methods of excitation because of saturation of the magnetic circuit. The comparison shows that the alloy with orientated crystallization requires the least field power. The use of permanent magnets with high coercive force in four-pole machines has less to

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E194/E455

Controlled-Output D.C. Machines With Permanent-Magnet Field Systems

recommend it. For self-excitation and starting, a d c. machine must have a relatively high residual flux and in this respect machines with partial permanent-magnet excitation are much superior to normal machines. Motors of this kind can be started against rated load without special starting windings. It is shown that motors with permanent magnets made of alloys with orientated crystallization and magnico have a starting voltage which is 2.5 to 3.5 times less than in normal machines. Alloys with high coercive force require a higher starting voltage which is 70 to 80% of the corresponding value for normal methods of excitation. D.C. motors operated with speed controllers are often required to be of great reliability because of the high runaway speeds that could result from field failure. Here motors with permanent magnets are particularly reliable because even if the compensation winding fails the excitation is sufficiently maintained. The field winding time-constants of machines with permanent-magnet excitation are much smaller than those of normal machines and, accordingly, transient process time is greatly reduced. In the

Card 4/5

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E194/E455

Controlled-Output D.C. Machines With Permanent-Magnet Field Systems

ordinary way alloys of high coercivity cannot be magnetized in the assembled machines. However, in the machines described here this is possible, because the compensating winding is wound directly on the permanent magnets and its full flux passes through the magnets along the axis of magnetization. The permanent magnet can accordingly be magnetized by passing through the coils a high value of direct current for a short time. The risk of de-magnetization by transient currents and short-circuit currents is considered and dismissed because the total flux of the magnet remains constant in such circumstances and the flux is redistributed between the air gap and the magnetic shunt. Commutation is practically the same in machines with permanent magnets and in normal machines. There are 7 figures, 2 tables and 6 references: 5 Soviet and 1 English.

SUBMITTED: March 2 1960

UX

Card 5/5

EL'STER, Petr Borisovich; CHESNOKOV, Anatoliy Mikhaylovich; KUTAY, A.K.,
kand.tekhn.nauk, red.; LEYKINA, T.L., red.izd-va; SPERANSKAYA,
O.V., tekhn.red.

[Technology of the manufacture of articles from vinyl plastic]
Tekhnologiya izgotovleniya izdelii iz viniplasta. Moskva. Gos.
nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1960. 84 p.
(MIRA 13:6)

(Plastics)

(Vinyl compounds)

CHESNOKOV, A.M.

PHASE I BOOK EXPLOITATION

SOV/4176

El'ster, Petr Borisovich, and Anatoliy Mikhaylovich Chesnokov

Tekhnologiya izgotovleniya izdeliy iz viniplasta (Technology of the Manufacture of Articles From Vinyl Plastics). Moscow, Mashgiz, 87 p. Errata slip inserted.

Ed.: A.K. Kutay, Candidate of Technical Sciences; Managing Ed. for Literature on Machine Building Technology (Leningrad Department, Mashgiz): Ye. O. Naumov, Engineer; Ed. of Publishing House: T.L. Leykina; Tech. Ed.: O.V. Speranskaya.

PURPOSE: This book is intended for designers, technological workers and foremen in various branches of industry

COVERAGE: The book describes the physical and mechanical properties of vinyl plastic, its chemical stability, methods of machining on metal working machine tools and the technology and equipment for heat forming and cementing. Some information on grading of the material and a description of some typical finished products are also given. No personalities are mentioned. There are

Card 1/5

EL'STER, P.B.; CHESNOKOV, A.M.; KUTAY, A.K., kand. tekhn. nauk,
retsensent

[Technology of the manufacture of vinyl plastic articles]
Tekhnologiya izgotovleniya izdelii iz viniplasta. Izd.2.,
perer. i dop. Moskva, Mashinostroenie, 1964. 170 p.
(MIRA 17:11)

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<p>CHESNOKOV, A.S.</p> <p>7</p> <p>B</p> <p>Rapid Manual Welding with Deep Penetration. (In Russian.) A. S. Chesnokov and A. D. Bondarenko. <i>Artel'noye Delo</i> (Welding), no. 4, 1947, p. 15-17. Proposes a new method of manual electric welding using an ultra-short arc resulting in very deep heat penetration. The technique of such welding and the results obtained are described and illustrated by a series of diagrams and tables.</p>																																																																																																													
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CHESNOKOV, A. S.

2a

25

Drying oil saving paints for steel constructions. A. S. Chesnokov and B. M. Giler. *Stroitel' Prom.* 23, No. 8, 23-2 (1967) (in Russian).—The paint "Al-177" is a suspension of Al powder in a lacquer composed approx. of bitumen 34.0, asphalt 8.0, linseed oil 5.0, solvent (white spirit, solvent naphtha, xylene, benzene, toluene, etc.) 52.0%. The Al powder is made by spraying molten Al and mech. treatment with stearic acid resulting in a scaly powder of about 0.8 μ grain size, with satisfactory leaving properties. The 1st coat is applied with 10% Al powder, the 2nd with 20%. The paint can be sprayed at 5° or brushed at -8°. The expenditure, in kg./sq.m., for the 1st coat is 0.120 lacquer and 0.014 Al, for the 2nd coat 0.068 and 0.022. Hardness, stability, and protective value compare favorably with the drying oil base paints. N. Thon

CHESNOKOV, A. S.

PA 6/49T17

USSR/Engineering

Welding, Arc

Welding - Methods

Jun 48

"High Speed Manual Welding With a Very Short Arc,"
A. D. Bondarenko, A. S. Chesnokov, TSNISS of the
Proyektstal' Konstruktsiya Trust, $\frac{1}{2}$ p

"Prom Energet" No 6

Suggestion received only a consolation prize in 1946
All-Union Competition, but in 1947 it came into wide
use. Inventors submitted additional data and won
first prize in 1947 contest. Advantages are: (1)
high quality of weld, (2) speed, (3) usability by

6/49T17

USSR/Engineering (Contd)

Jun 48

semiskilled personnel, (4) economy of power and
electrodes. Described by A. D. Bondarenko in
"Prom Energet No 10," 1947.

6/49T17

CHESNOKOV, A. S.

Skorostnaia elektrodugovaia svarka s glubokim proplavleniem, "Ul'trakorotkaia duga"
Moskva, Gos. izd-vo stroit. lit-ry, 1950, 53 p. diagra.

High-speed electric arc welding with deep fusing, "Ultrashort arc."
DLC: TK4660. C48

SO: Manufacturing and Mechanical Engineering in the Soviet Union, Library of
Congress, 1953

~~CHESNOKOV, A.S.~~; DUBINSKIY, G.S., dotsent, redaktor; PUL'KINA, Ye.A.,
tekhnicheskii redaktor

[Production of steel elements] Proizvodstvo stal'nykh konstruktsii.
Moskva, Gos.izd-vo stroit. lit-ry, 1951. 321 p. [Microfilm]
(Steel, Structural) (MIRA 10:1)

CHESNOKOV, A. S.

CHESNOKOV, A. S. -- "STANDARD ASSEMBLING OF A COMBINATION OF STEEL CONSTRUCTIONS OF INDUSTRIAL BUILDINGS -- A PREREQUISITE OF THE FUNDAMENTAL IMPROVEMENT OF THE TECHNOLOGY OF MANUFACTURING." SUB 15 JAN 52, CENTRAL SCI RES INST OF INDUSTRIAL STRUCTURES (TSNIPS) (DISSERTATION FOR THE DEGREE OF CANDIDATE IN TECHNICAL SCIENCE)

SO: VECHERNAYA MOSKVA, JANUARY-DECEMBER 1952

CHESNOKOV, A.S., inzhener; **PROSTOSERDOV, A.P.**, redaktor; **TOKER, A.M.**, tekhnicheskiiy redaktor.

[Safety manual for operators of rolling, cutting and punching presses]
Paniatka po tekhnike besopasnosti dlia rabotaiushchikh na pravil'nykh
val'tsakh, nozhnitsakh i dyroprobivnykh pressakh. Moskva, Gos.izd-vo
lit-ry po stroit. i arkhitekture, 1955. 23 p. (MLRA 9:5)

1. Russia (1923- U.S.S.R.) Ministerstvo stroitel'stva predpriyatiy
metallurgicheskoy i khimicheskoy promyshlennosti. Upravleniye rabochikh
kadrov, truda i byta.

(Power presses--Safety measures)

CHESNOKOV A.S.

U S S R .

11909* Problem of the Depth of Weld Penetration in Manual Welding. O voprosu o glubine proplavleniya pri ruchnoi svarke. (Russian.) A. S. Chesnokov. Stalochinoc Proizvodstvo, 1955, no. 5, May, pp. 24-27.

Calculation of factors in electric arc welding; electrode diameters, current strength, seam parameters. Problem of T-shaped welds. Composition of weld. Mechanical properties. Graphs, tables, diagrams.

M 42

CHESNOKOV, A.S., kand. tekhn. nauk

Using low-alloy steels in construction. Biul. stroi. tekhn. 12
no.6:10 Je '55. (MIRA 11:12)
(Steel alloys) (Steel, Structural)

CHESNOKOV A.S.

TSAL'MAN, L.B., inzhener; CHESNOKOV, A.S., kandidat tekhnicheskikh nauk;
PETROV, A.M., inzhener; GILLER, Ye.M., inzhener; KOVAL'CHUK, M.F.,
inzhener, redaktor; PETROVA, V.V., redaktor izdatel'stva; LAUTINA,
I.M., tekhnicheskii redaktor

[Instructions for making steel structures of low-alloy steel,
type NI2 (I221-56/MSPMKhP)] Instruktسيا po izgotovleniiu
stal'nykh konstruktсий iz nizkolegirovannoi stali marki NI2.
(I 221-56/MSPMKhP). Moskva, Gos. izd-vo lit-ry po stroit. i
arkhit., 1957. 29 p. (MIRA 10:11)

1. Tsentral'naya nauchno-issledovatel'skaya laboratoriya stal'nykh
sooruzheniy Gosudarstvennogo proyektного instituta Proyektstal'-
konstruktсий Minmetallurgkhimstroya SSSR (for TSel'man, Chesnokov,
Petrov, Giller). 2. Russia (1923- U.S.S.R.) Ministerstvo
stroitel'stva predpriyatiy metallurgicheskoy i khimicheskoy pro-
myshlennosti. Tekhnicheskoye upravleniye. 3. Otdel normativnykh
dokumentov Tekhnicheskogo upravleniya Ministerstva stroitel'stva
predpriyatiy metallurgicheskoy i khimicheskoy promyshlennosti SSSR
(for Koval'chuk)

(Steel alloys) (Welding)

CHESNOKOV, A.S.

SUBJECT: USSR/Welding 135-2-7/12

AUTHORS: Chesnokov, A.S., Candidate, of Technical Sciences, and
Kuz'min, Yu.P., Engineer.

TITLE: Semi-automatic arc-welding with magnetized flux. (Poluavtomaticheskaya dugovaya svarka s namagnichivayushchimsya flyusom).

PERIODICAL: "Svarochnoye Proizvodstvo", 1957, # 2, pp 21-23 (USSR)

ABSTRACT: The technology of semi-automatic welding with open arc and magnetized flux had been proposed in 1950 by A.I. Khodzhayev who had been granted an author's certificate in 1955, but the practical use of the process in industry was delayed by the absence of magnetic flux and a special holder. In 1956, the central research laboratory for steel constructions of the State Polytechnical Institute (ГПИ), "Proektstal'konstruktsiya", developed a magnetizable flux and designed a flux holder with a special magnetic head for use in the welding holder AU-5 which is used in semi-automatic welding.

The magnetic head is funnel-shaped and comprises a circular constant magnet with a central bore through which pass the welding wire and the flux. The magnet attracts the flux and

Card 1/3

TITLE: Semi-automatic arc-welding with magnetized flux. (Poluavtomaticheskaya dugovaya svarka s namagnichivayushchimsya flyusom).
slightly dried flux through a wire strainer. 135-2-7/12

The process is recommended for testing and subsequent introduction in welding steel constructions. The advantages of the process are: the visibility of work faces being welded is possible, since in this case welding is performed with an open arc; no loss of flux; estimated increase in productivity 30-33% as compared with semi-automatic welding under flux, and 55-56% as compared with welding by hand with electrodes UM-7C.

The article contains 1 drawing, 1 photograph, 2 tables.

INSTITUTION: BHMN3CQ(VNIIESO) 11-11 Sci. Res. Inst. Electric Welding Equipment

PRESENTED BY:

SUBMITTED:

AVAILABLE: At the Library of Congress

Card 3/3

CHESNOKOV A. S.

135-9-13/24

AUTHOR: Chesnokov, A.S., Candidate of Technical Sciences

TITLE: Ceramic Flux with Iron Powder (Keramicheskiy flyus s zheleznyy poroshkom)

PERIODICAL: "Svarochnoye Proizvodstvo", 1957, # 9, p 30-31 (USSR)

ABSTRACT: In 1956 the research institute TsNILSS GPI "Proyektstal'-konstruktsiya" conducted experiments with the purpose of obtaining a ceramic flux which would provide a higher fusion coefficient and be less expensive than the existing fluxes. The article presents detailed data on flux "ФКЖ -4" containing powdered iron, which was found optimum in the result of experiments. Its composition (in %) is this: titanium concentrate - 38, granite - 8, fluorspar - 14, electric furnace-ferromanganese - 12, ferrosilicon - 8, powdered iron - 20. The required content of elements in these components is indicated. The mechanical preparation manipulations are described. The flux was granulated by rubbing the slightly dried compound through a wire strainer. A drilling machine was readapted for this purpose (as shown by a photograph). The chemical composition and mechanical properties of steel

Card 1/2

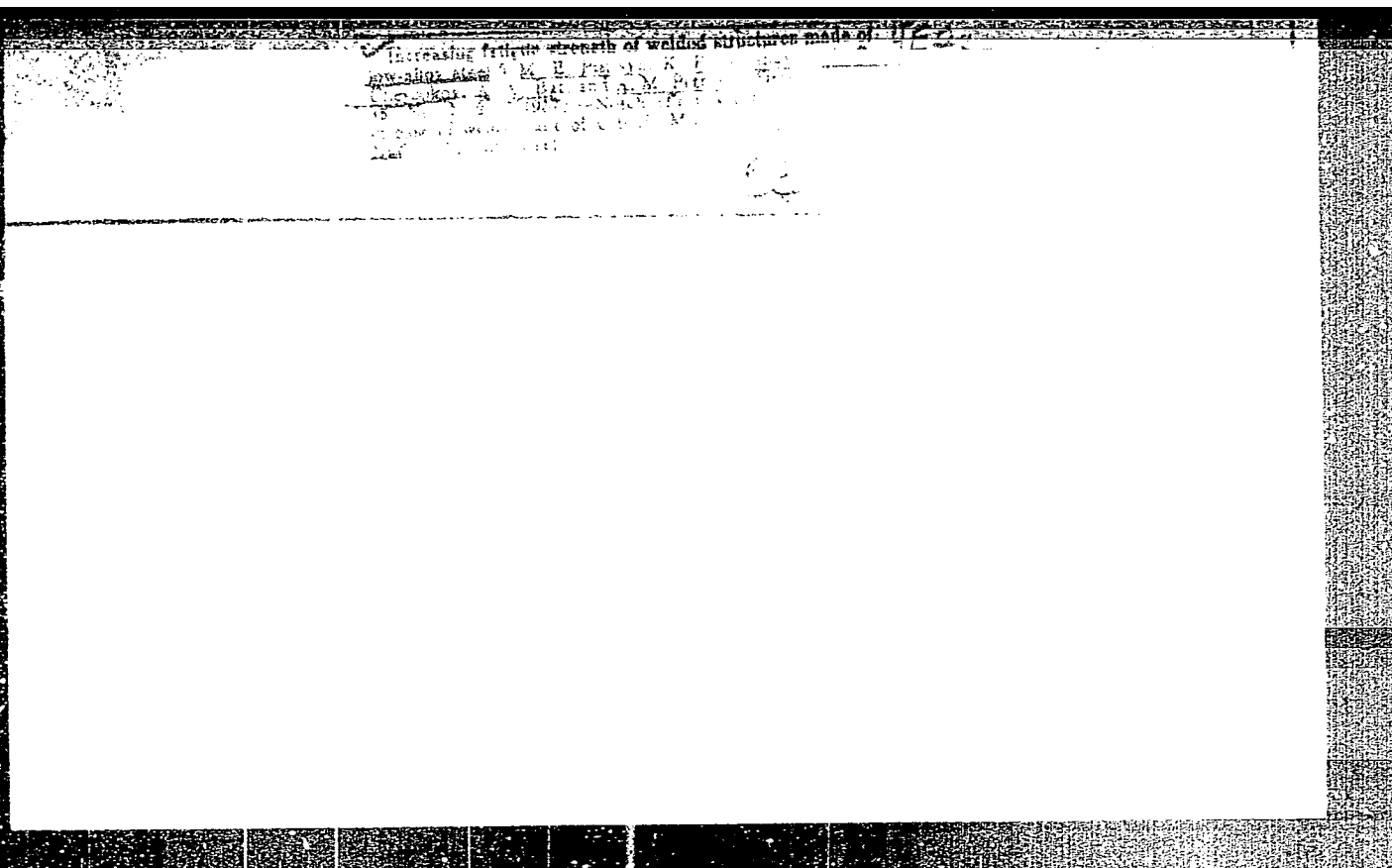
Ceramic Flux with Iron Powder:

135-9-13/24

"Cr 3" welded with the use of the subject flux are given. An editor's note to the article remarks that it cannot be considered proper to use titanium concentrate and other strong de-oxidizers in ceramic flux compounds. The article contains 1 photograph and 1 chart.

AVAILABLE: Library of Congress

Card 2/2



81196

SOV/137-59-5-10296

18.7200

Translation from: Referativnyy zhurnal, Metallurgiya, 1959, Nr 5, p 120 (USSR)

AUTHOR: Chesnokov, A.S.

TITLE: Welding of Low-Alloy "NL2" and "14KhGS" Grade Steels

PERIODICAL: V sb.: Ekon. metalla pri primenenii stal'n. konstruktsiy, Moscow, Gosstroyizdat, 1958, pp 70 - 75

ABSTRACT: The author gives data on tests made with "NL2" and "14KhGS" grade steels for determining their weldability by the bead test method. Data obtained were used for recommendations concerning the selection of the technology and conditions of manual arc and automatic welding under flux. The author indicates also the method of testing "NL2" steel prior to the manufacture of welded structures, i.e.: chemical control analysis, determination of the C equivalent (0.48% permissible); welding of rigid small tee-bars, determination of cracks in the bars and measuring of their hardness. It was shown that σ_w in "NL2" steel weld joints was lower by 20% than in the

Card 1/2

81196
SOV/137-59-5-10296

Welding of Low-Alloy "NL2" and "14KhOS" Grade Steels

base metal. In welding, "14KhOS" steel becomes less incandescent than NL2 steel. "14KhOS" grade steel is welded by the same technology. However, it is not recommended for use in structures of metal of over 20 mm thickness because of crack formation during cutting on guillotine shears and piercing on punching machines.

Yu.K.



Card 2/2

SOV/137-59-1-702

Translation from: Referativnyy zhurnal. Metallurgiya, 1959, Nr 1, p 95 (USSR)

AUTHORS: Kuz'min, Yu. P., Chesnokov, A. S.

TITLE: Semiautomatic Welding With Magnetizable Flux (Poluavtomaticheskaya svarka s namagnichivayushchimsya flyusom)

PERIODICAL: V sb.: Materialy po stal'n. konstruktsiyam. Vol 2. Moscow, 1958, pp 186-194

ABSTRACT: The authors describe a welding (W) method in which a special powdered magnetic flux (F) is attracted to a current-carrying welding wire, thus producing on it a coating comparable to that found on high-grade electrodes. The authors developed a reliable, light-weight welding accessory (A). It consists of a hopper on the end of which a permanent ring-shaped magnet made of an "Alnisi" or a "Magnico" alloy is mounted. The welding wire passes through the gap of the magnet. The magnet controls the amount of F supplied during W and shuts off the flow of the F whenever the arc is idle. The A described is attached in place of the holder onto the conduit of a semiautomatic PSh-5 welder. The composition of the F's FMK-3 and FMK-NL, developed for W of steels St 3 and NL-2 respectively, is described.

Card 1/2

SOV/137-59-1-702

Semiautomatic Welding With Magnetizable Flux

The technology of preparation of the magnetic F's is analogous to the technology of manufacture of ceramic F's. The F's ensure satisfactory weld formation, the average mechanical properties of metal deposited being as follows:

FMK-3: $\sigma_b = 49.6 \text{ kg/mm}^2$; $\delta = 28.4\%$; $a_k = 14.7 \text{ kgm/cm}^2$;
FMK-NL: $\sigma_p = 53.3 \text{ kg/mm}^2$; $\delta = 29\%$; $a_k = 21.8 \text{ kgm/cm}^2$. Welding procedures recommended for various types of weldments are presented. It is pointed out that the employment of magnetic F's increases the productivity of manual and semi-automatic submerged-arc W operations by 50-60 and 25-30% respectively.

A. M.

Card 2/2

CHESNOV, A.S., kand. tekhn. nauk

Low-alloy 14G2 structural steel. Prom. stroi. 37 no. 3:58-61
Mr '59. (MIRA 12:4)

(Steel alloys)

CHESNOKOV, A.S., kand.tekhn.nauk

"Temporary technical specifications for delivering the 14G2 steel"
and "Temporary technical instructions on designing and making
14G2 steel construction elements." Prom stroi. 37 no.5:44-45
My '59. (MIRA 12:7)

(Steel, Structural)

CHESNOKOV, A.S., kand.tekhn.nauk

New system of size allowances for steel construction elements.
Prom. stroi. 38 no.5:51-54 '60. (MIRA 14:5)
(Steel, Structural) (Tolerance (Engineering))

83550

1,2300

S/135/60/000/009/008/015
A006/A002

AUTHOR: Chesnokov, A. S., Candidate of Technical Sciences

TITLE: Advanced Improvement of Semi-Automatic Welding With Magnetizable Flux

PERIODICAL: Svarochnoye proizvodstvo, 1960, No. 9, pp. 21-24

TEXT: Although semi-automatic welding with magnetizable flux and conventional low carbon wire is more efficient than manual welding with such a flux and semi-automatic welding under flux, this method was as yet not brought into extended use due to the following deficiencies: the holder is heavy; the production of ceramic flux is not centralized; its manufacture presents some difficulties; the necessity of transporting the wire feed mechanism is strenuous; some operators refuse to work with flux containing fluorspar. During the past two years "Proyektstal'konstruktsiya" has been improving semi-automatic welding with magnetizable flux attempting to eliminate the aforementioned defects. The conventional holder is equipped with a funnel-shaped flux container and its operation is strenuous. Therefore the flux container was removed from the holder and placed 3 to 4 m from the welding space. The flux is supplied to the holder through a hose. It is expedient to mount the flux feeder on the wire

Card 1/3

83550

S/135/60/000/009/008/015
A006/A002

Advanced Improvement of Semi-Automatic Welding With Magnetizable Flux

the welding wire coil are mounted on the bracket's extremity. The bracket may be displaced upward and downward along the column guides and can be rotated around the vertical axis. The machine can be used for welding under flux, in carbon dioxide and with magnetizable flux. A set of fluxes was developed producing satisfactory weld joints (Composition given in Table 1). The use of ~~FMK~~ FMK-10 (FMK-10) flux is recommended for producing horizontal K-shaped welds under the following conditions: 200 - 240 amps. current; 30 - 32 v arc voltage; 190 m/hr wire feed, 1.6 m wire diameter, 5 mm grooving aperture. The use of magnetizable flux will be extended for automatic welding during the assembly of structures. This is an important achievement since automatic welding of horizontal seams on vertical surfaces is very difficult. There are 3 tables and 5 figures.

ASSOCIATION: "Proyektstal'konstruktsiya".

Card 3/3

CHESNOKOV, A.S., kand.tekhn.nauk

Riveting aluminum-alloy construction elements using large-diameter
iron pins. Prom. stroi. 38 no.10:20-25 '60. (MIRA 13:9)
(Rivets and riveting) (Aluminum alloys)

S/135/62/000/012/010/015
A006/A101

AUTHORS: Chesnokov, A. S., Candidate of Technical Sciences, Kuz'min, YU. P.,
Engineer

TITLE: The effect of gas-electric cutting upon the properties of aluminum
alloys

PERIODICAL: Svarochnoye proizvodstvo, no. 12, 1962, 25 - 28

TEXT: The investigation was made at the "Proyektstal'konstruktsiya"
Institute with 20 mm thick plates of aluminum alloys ABT 1 (AVT1) AD 35 (AD35)
B 92 (V92) A1M (ATsM) and AMr 6 (AMg6). The specimens were cut on a P1M -1-60
(RDM-1-60) cutter, redesigned by VNIIAVTOGEN. As the tungsten electrode was
placed inside a water-cooled nozzle, the arc was excited by means of an auxiliary
arc between the tungsten electrode and the nozzle wall. The gas mixture contained
65% argon and 35% hydrogen. Cutting conditions were: 300 amps current; 1.6 m/min
cutting speed; 1.3 m³/h total gas consumption; hydrogen content in the gas mix-
ture - 20%; distance between the nozzle and the metal surface - 7 mm. The effect
of the thermal cycle upon the strength and hardness of the alloys was tested and

Card 1/2

The effect of gas-electric cutting upon...

S/135/62/000/012/010/015
A006/A101

the following results were obtained. The thermal cycle of gas-electric cutting reduces the strength of alloys in the zone adjacent to the cutting edge. The degree of reduction of the mechanical properties in the heat-affected zone depends upon the alloy grade. When aluminum alloy structures are produced with the use of gas-electric cutting, the reduced-strength-zone must be removed by planing, or must be taken into consideration in the calculations. The magnitude of the heat-affected zone under the described conditions can be considered as follows: 10 - 12 mm for alloy AVT1, 8 - 10 mm for AD35, 10 - 12 mm for ATsM; 7 - 8 mm for V92, and 3 mm for AMg6. There are 5 tables and 7 figures.

ASSOCIATION: "Proyektstal'konstruktsiya"

Card 2/2

BORISENOK, G.V., inzh.; KARASEV, N.F., inzh.; MOLIVER, P.S., inzh.;
CHESNOKOV, A.S., inzh.

Rapid method of tunneling with ordinary shields. Transp.
stroi. 12 no.8:22-24 Ag '62. (MIRA 15:9)
(Moscow--Subways) (Tunneling)

CHESNOKOV, A.S., kand.tekhn.nauk; KUZ'MIN, Yu.P., inzh.

Effect of gas-arc cutting on the properties of aluminum alloys. Svar. proizvod. no.12:25-28 D '62. (MIRA 15:12)

1. Gosudarstvennyy institut po proyektirovaniyu, issledovaniyu i ispytaniyu stal'nykh konstruktsiy i mostov.

(Electric metal cutting)
(Aluminum alloys--Metallography)

AYDAROV, G.A., inzh.; BELYAYEV, B.I., inzh.; LEVIN, L.I., inzh.;
RYABOV, A.F., inzh.; SAKHNOVSKIY, M.M., kand. tekhn.
nauk; CHESNOKOV, A.S.; SHILOVTSEV, D.P.; GAY, A.F., kand.
tekhn.nauk, nauchn. red.; GORDEYEV, P.A., red.; GOL'BERG,
T.M., tekhn. red.; RODIONOVA, V.M., tekhn. red.

[Manufacture of steel structures] Izgotovlenie stal'nykh
konstruktsii. Moskva, Gosstroizdat, 1963. 401 p.

(MIRA 16:8)

(Steel, Structural)

ABARINOV, Andrey Andreyevich, prof.; PETROV, Vasilii Petrovich,
inzh.; ROZHKOV, Yevgeniy Yegorovich, inzh.; CHESNOKOV,
A.S., kand. tekhn. nauk, nauchnyy red.; SHIROKOVA, G.M.,
red. izd-va; MIKHEYEV, A.A., tekhn. red.

[Technology of manufacturing the elements of steel structures]
Tekhnologiya izgotovleniya stal'nykh konstruktsii. Moskva,
Gosstroizdat, 1963. 306 p. (MIRA 16:7)
(Building, Iron and steel)

CHESNOKOV, A.S., kand.tekhn.nauk; PETROV, A.M., inzh.

Changes in weld zone metal properties during the argon-arc welding
of ABT1, AMg6, B92, and ATSM alloys. Svar. proizv. no.3:16-18
Mr '63. (MIRA 16:3)

1. Gosudarstvennyy proyektnyy institut po proyektirovaniyu,
issledovaniyu i ispytaniyu stal'nykh konstruktsiy i mostov.
(Aluminum alloys--Welding) (Thermal stresses)

CHESNOKOV, A. S. kand. tekhn. nauk

The V-92T high-strength aluminum alloy for structural elements.
Prom. stroi. 40 no.7:47-52 JI '63. (MIRA 16:10)

CHESNOKOV, A.S., kand. tekhn. nauk

Assembly of shear-resistant joints of metal structures using
high-strength bolts. Prom. stroi. 42 no.1:37-40 '65.

(MIRA 18:3)

CHESNOKOV, A.S., kand. tekhn. nauk

Joining aluminum elements with high-strength steel bolts.
Prom. stroi. 42 no.5:34-38 '65. (MIRA 18:8)

CHESNOKOV, A.S., kand. tekhn. nauk

AD35 aluminum alloy. Prom. stroi. 41 no.5:37-41 My '64.
(MIRA 18:11)

KULIKOV, Petr Yegorovich, inzh.; RABINOVICH, Naum Isayevich, inzh.;
BOZHANSKIY, G.S., dotsent, kand.tekhn.nauk, retsenzent;
~~CHESNOKOV, A.V.~~, inzh., retsenzent; KRYUKOV, V.L., inzh., red.;
NAKHIMSON, V.A., red.izd-va; UVAROVA, A.F., tekhn.red.

[Operation of farm irrigation pumping stations] Ekspluatatsiya
sel'skikh orositel'nykh nasosnykh stantsii. Moskva, Gos.nauchno-
tekhn.izd-vo mashinostroit.lit-ry, 1958. 157 p. (MIRA 12:4)
(Irrigation) (Pumping machinery)

TATARINOV, M.P., prof.; KOCHNEV, M.G., inzh.; CHESNOKOV, A.V., inzh.

New centrifugal mine pump. Nauch. trudy MGI no.23:209-216
'58. (MIRA 15:12)

(Mine pumps)

CHESNOKOV, A. Ye.

112-3-6122

Translation from: Referativnyy Zhurnal, Elektrotekhnika, 1957,
Nr 3, p. 155 (USSR)

AUTHOR: Chesnokov, A. Ye.

TITLE: Spark Machining of Metals (K voprosu ob elektroisk-
rovoy obrabotke metallov)

PERIODICAL: Nauchn. zap. Odessk. politekhn. in-ta, 1955, Vol. 8,
pp. 63-75.

ABSTRACT: An experimental study was made of the productivity
(removal of metal per unit of time) of spark machining
of metals as a function of the electrical operating
conditions of the installation, in which a standard
capacitor circuit was used. A linear relationship be-
tween productivity and the magnitude of average current
in the charging circuit was obtained for the range of
operating conditions studied. Measurements made for
various values of circuit parameters (source voltage,
capacitor capacitance), with the average current held
constant, showed that the productivity was the same in
all cases. A conclusion on the linear relationship be-
tween erosion of a single impulse and the amount of
electricity flow in the impulse is made on the basis
of the results obtained. There is a discrepancy

Card 1/3

112-3-6122

Spark Machining of Metals (Cont.)

between this conclusion and earlier results of experiments conducted by B. N. Zolotych establishing a linear relationship between erosion of a single impulse and the energy generated in the spark gap, which the author attributes to a difference between experimental techniques. On the basis of the conclusion, the author derives a design formula which establishes the relationship between productivity and circuit parameters. In deriving the formula, the author introduces a simplifying assumption by substituting a certain averaged linear resistance for the nonlinear electrical characteristics of the spark gap. The maximum productivity, as determined by the formula, considerably exceeds the actual productivity of electric spark installations. It is assumed that this discrepancy is due to a greater number of short-circuits caused by the presence of dispersed particles in a small gap, resulting in a high frequency of discharge repetition. In the opinion of the author, productivity can be increased considerably without changing the circuit parameters by artificially increasing evacuation of erosion particles from the interelectrode gap.

A.I.K.

Card 2/3

CHESNOKOV, A. Ye., Cand Tech Sci -- (diss) "Oscillations of electromagnetic vibrator in the presence in its circuit of a condenser included in series." Moscow, 1960. 18 pp with charts; (Ministry of Higher and Secondary Specialist Education RSFSR, Moscow Order of Lenin Power Inst); 250 copies; free; (KL, 21-60, 126)

CHESNOKOV, A.Ye. (Odessa)

Concerning the theory and design of an electromagnetic vibrator.
Elektrichestvo no.12:37-40 D '61. (MIRA 14:12)
(Vibrators)

3716 CHESNOKOV, B. M.

Sportivnaya sor'ca v SSSR. Spravochnik. M, "Fizkultura i sport", 1954
420 s. 20 sm. 12.000 ekz. 8 r. 50k. V per. Na pereplete avt. neukazan
(54-57163) p 796.81.092

CHESNOKOV, B.B.; SLIN'KO, M.G.; KERNERMAN, V.Sh.

Determination of the critical velocity of gas fluidization under
pressure. Khim.prom. no.11:767-768 N '61. (MIRA 15:1)
(Fluidization)